

ON TARGET

THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY • A DEPARTMENT OF ENERGY FACILITY

Director discusses

*recommendations, planned actions
from safety review*

Near-miss incidents

require reporting as do mishaps

In their own words

*with mechanical designer
Corey Butler*

ISRFST leads the way

*on cavity redesign with Jacek
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Science to the Core

*academic tournament is a huge
success*

Earning high safety rating *JLab takes aware, proactive approach in handling variety of EH&S issues*

by James Schultz

Jefferson Lab's attention to detail pays off. For instance, in the most recent performance review, measured in the context of eight metrics defined in SURA's (Southeastern Universities Research Association) contract with the Department of Energy (DOE) for managing and operating the Lab, JLab netted an overall percentile ranking of 96.1% and a rating of "outstanding."


One key measure involves performance in the areas of environment, health and safety. Here, too, the Lab merits an "outstanding" rating. The basis of JLab's safety program is Integrated Safety Management, which focuses on five key functions: work definition; hazard analysis; hazard controls; work within controls; and feedback and continuous improvement.

"The principles and core functions of ISM are pretty straightforward," says Jim Murphy, director of the Lab's Office of Assessment. "It gives us a common language across all the DOE facilities, and establishes a framework to work within."

That structure is especially useful when analyzing the root cause and means of preventing accidents. Although ISM is DOE-wide, facilities have different missions and therefore must confront a variety of safety concerns. Comparatively speaking, Jefferson Lab's accident rate is much lower than industry as a whole and generally less than those posted by other DOE enterprises.

However, Murphy cautions that the occurrence of relatively few accidents must not lead to complacency. Because Lab researchers and technicians must rou-

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JLab's Office of Assessment staff includes: (front row, left to right) Linda Even, EH&S Reporting officer; Jim Murphy, Office of Assessment director; and Mary Jo Bailey, OA administrative assistant; and (back row, l. to r.) Carter Ficklen, EH&S Reporting manager; Carrie Nichols, EH&S clerical assistant; Betty Beeler, EH&S Reporting staff secretary; Jennifer Allen, EH&S documentation technician; and Hugh Williams, OA assessment engineer.

Lab takes proactive approach to EH&S issues...

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tinely be around or handle potentially dangerous equipment or potentially radioactive materials, safety remains on equal footing with schedule and budget priorities for all Jefferson Lab personnel. In addition, the Lab's involvement with the construction of the Spallation Neutron Source in Oak Ridge, Tennessee — the Lab is building cryomodules for the SNS — introduces additional safety challenges.

"You can do everything right and something bad can still happen," Murphy says. "We have a good safety record; however, it could be better. A lot of accidents here are of the 'oops' variety. Our goal has to be zero accidents."

Murphy says that an effective safety program must involve everyone at the Lab, not just a few safety professionals whose job it is to oversee and enforce standards. He says that if there is a problem, employees and contractors should feel obligated to fix it or report it. In the event of a potentially dangerous situation, everyone at the Lab is empowered to order work to be stopped to prevent an accident from occurring.

The Lab's proactive approach is illustrated in an ongoing discussion about how best to store the roughly 400 bottles of compressed nitrogen,

oxygen, helium or other types of gas routinely used in facility and accelerator operations. Currently the bottles are stored throughout the Lab complex. Discussions are underway to review those practices, to insure that no inadvertent harm could come to anyone as a result of where and how the bottles are currently kept.

"Any source of energy, like compressed gas, could conceivably hurt somebody," Murphy says. "Maybe we need a central repository. Or maybe not. It is something we're looking at."

Deciding what to do will be after consultation with and input from a number of people and departments Lab-wide. That's how safety should work, Murphy says: putting it in the forefront of the minds of JLab staff and users. Such an approach has so far been productive. For the first three months of the fiscal '03 year (October through December 2002) the Lab didn't register a single reportable injury. That's a trend Murphy wants to encourage.

"Were we lucky or were we good?" he wonders. "We want to be good. We want to make sure we're doing everything we can to prevent accidents. A person should go home at night with as many fingers and toes as she or he came to work with."

A little history on JLab's safety program

Since Jefferson Lab became a federally funded research facility in Fiscal Year 1984, Lab management has held to the philosophy that to be effective, environment, safety and health must be an integral part of all Lab work.

This philosophy has been institutionalized and continuously improved upon at the Lab since that time.

Over the years, the effectiveness of this approach was recognized as a best practice by industry and was made a part of Department of Energy policy in the mid-1990s. When DOE instituted this program — called Integrated Safety Management or ISM — the similarity between it and JLab's safety management program were so great

that the Lab made only four changes to its safety management program to bring it in line with DOE's new program. ISM's principles and functions are fully embedded into JLab's operations and described in the Environment, Health & Safety Manual, available online at www.jlab.org/ehs/.

The overriding concept of ISM is the integration of safety awareness and good practices, at all levels, and in all aspects of work conducted. Safety is an integral part of each job — not a stand-alone program. All activities should be conducted in such a manner that workers and other people are protected and no harm is caused to the environment.

Dear Colleagues:

Recently we have completed a review of Jefferson Lab's Integrated Safety Management System, which governs the approach we use in assuring that safety is a part of all of our daily work. While Jefferson Lab had incorporated many of the principles of ISM even before it was given that formal name within the Department of Energy, this recent review provided important feedback that will help us improve our safety record — protecting our people, our property and our scientific output. I want to give these recommendations some visibility in my column in the hopes that we can all take them to heart in improving our safety awareness and performance.

The Review Committee suggests that the Lab should respond to all EH&S recommendations within two weeks, and to complete corrective actions on time. We are planning to address both of these items by implementing an integrated Lab-wide EH&S tracking system to document and track problems or deficiencies.

The Review Committee's second recommendation is to raise the visibility of safety at Jefferson Lab. I have begun visiting workgroups personally to reinforce my commitment, but additionally we plan to post measures of safety performance on the web and in other public places. We also plan to emphasize a variety of safety topics in upcoming issues of the *On Target* newsletter, and to continue covering safety on a regular basis in the newsletter. And the Associate Directors will be emphasizing safety issues within their respective areas.

The Review Committee's third recommendation is to make better use

of Environment, Health and Safety inspection results. I will soon be getting a semiannual analysis of EH&S inspection results and will focus our efforts to respond to this input in an effective manner.

The fourth recommendation of the Review Committee is to improve the ability of subject matter experts to contribute to safety at Jefferson Lab. We plan to address this in three ways. First, we will continue to include and underscore performance expectations for all those who have specialized safety responsibilities as part of their jobs (safety wardens, EH&S committee members, etc). Second, we plan to amend the charters of the EH&S committees and subcommittees to further encourage proactive efforts to continue improving safety, and third, all such committees will be invited to report to Lab management annually on their accomplishments.

Lab management, and I personally, are working to see that these recommendations are implemented. But while these suggestions are very helpful, the primary ingredient for excellent safety performance is the vigilance of each and every one of you as you go about your day-to-day work. I encourage you to become familiar with JLab's ISMS plan and the recent review (www.jlab.org/div_dept/dir_off/oa/isms.html) and continue to rededicate yourself to safe and environmentally sound operations.

I ask that you step forward to offer your EH&S feedback and suggestions to your supervisors, area safety wardens, Division safety officers, or to me.



Christoph Leemann
Jefferson Lab Director

*Safety is
critical to our
health and
JLab's*

**From
the
Director**

Safety is everyone's business

Near-miss incidents must be reported as do all mishaps

by Judi Tull

Good safety is good business, and safety here is everyone's business, no matter what your job. Those are the watchwords of Carter Ficklen, Environment, Health and Safety Reporting Manager in JLab's Office of Assessment.

"We want everyone — physicist, technician, administrator, subcontractor and user — to train appropriately and work safely on a daily basis," Ficklen said.

With two "near-miss" incidents during the past year — both involving electrical work — the bar for safety awareness has been raised in an environment where safety was already of primary importance. Department of Energy safety requirements exceed any other agency's, and the Lab's safety record is more than twice as good as any comparable industry, Ficklen noted.

Looking back, most of the Lab's safety issues and incidents took place during the construction phase that ran from 1987 through the mid-1990s. At JLab in the late 1980s, the greatest hazards were from falls and the potential for big things dropping, he said. As the construction wound down in the mid-90s, safety hazards were more routine, but rose again when construction began on the additional space needed in the Test Lab for Spallation Neutron Source component production.

Ionizing radiation and cryogenics are exotic hazards that have less day-to-day impact on most employees and researchers than the more mundane ones, according to Ficklen. "If you take those unique components out of the picture, we share many of the same safety concerns as any light industry," he explained.

What is different here, however, is the work that is done and the experimental equipment that is brought in. Safety is of the utmost importance because of that uniqueness.

"Because of the nature of what we do, if we have a major event when an experiment that's been planned for eight or 10 years is about to begin, we can't just run to the machine shop for parts," Ficklen pointed out. "We want it done right, and everything we do is aimed at getting the job done right. We're evaluated on one simple question: did we get the experiment done?"

Although everyone at JLab is responsible for safety, about 130 people — from the medical staff to EH&S subcommittees to safety wardens — have special responsibilities for mishap prevention, and if something unanticipated should occur, they see that it is dealt with appropriately. The safety wardens are, Ficklen said, the eyes and ears on the front lines. They act as the focal points for getting things fixed and starting the paperwork process if an event occurs.

Reporting incidents is almost as important as avoiding them, he added. During the past year and a half, there were a number of cases where employees did not report on-site injuries to Medical Services and either went home or went to their private physicians. If such injuries are not promptly and properly diagnosed and treated, they can get worse, leading to additional time lost from work. Improper initial reporting can also potentially impact a worker's compensation benefits.

Ficklen said that while it is important for employees to report actual injuries, it is equally important to report near misses. "We try to impress upon people here to tell us not only when they do get hurt, but when they almost get hurt, or find themselves in a situation where they could have been hurt," he said. "We learn from every situation and we post lessons learned on the EH&S web page (www.jlab.org/safe.html). We learn as much from a near-miss situation as from an accident."

"What gets measured," he notes, "typically improves."

Individual responsibilities are clear-cut, Ficklen said, right down to the fact that every employee at the Lab has the authority to call a "stop work" if they observe an unsafe situation. No work goes forward until that issue is resolved, he said, and that level of authority is not characteristic of what's granted at other labs or in industry.

"It's each employee's duty to work safely, correct obvious deficiencies, and immediately notify the appropriate authority — your supervisor, safety warden or division safety officer — if you have concerns or in the event of any kind of incident," he comments.

When I was a kid, I always had a pencil in my hand — drawing, doodling. In 7th grade I took my first shop class, and realized it was cool to build things from mechanical drawings and that it would probably be even cooler to do the original drawings! You could say that my course in life was set from the time I was 12.

I grew up in Smithfield, the older of two boys. I was lucky, because by the time I got to high school, Isle of Wight schools were offering Advanced Placement classes for qualified students, and the Beta Club was there for honors students. Administrators were paying a lot of attention to curriculum, and if you had the ability, you had a place to go with it. I always felt encouraged and supported in my educational pursuits.

I graduated in 1989 and went to Virginia State University, in Petersburg. I graduated from Virginia State in 1994 (cum laude) with a B.S. in industrial technology. Many of my peers were having trouble finding work after college, and I was a little concerned that I'd face the same pressures. I'd had a lead on a job, but by the time I graduated, it had been filled. Getting my first job was sort of a fluke. I was on my way to meet with a recruiter, coming across the James River Bridge. I looked over and saw the shipyard and thought that I ought to send an application to them. Almost unbelievably, I was hired almost immediately. It had only been five weeks since I'd graduated.

I was at Newport News Shipbuilding for six years, as a mechanical designer, working in aircraft carrier engineering. It was a good job — and I was glad to have it — but the work wasn't entirely challenging or creative.

I came here in July 2000. I found out about the job I currently have with the Accelerator Division's Mechanical Engineering group by checking the Jefferson Lab job line. I was very excited for the opportunity to work here. It allows me to contribute to the latest research and marvels in the world of accelerator science. It also gives me the opportunity to work with some of the best people from around the world in the field of engineering and physics.

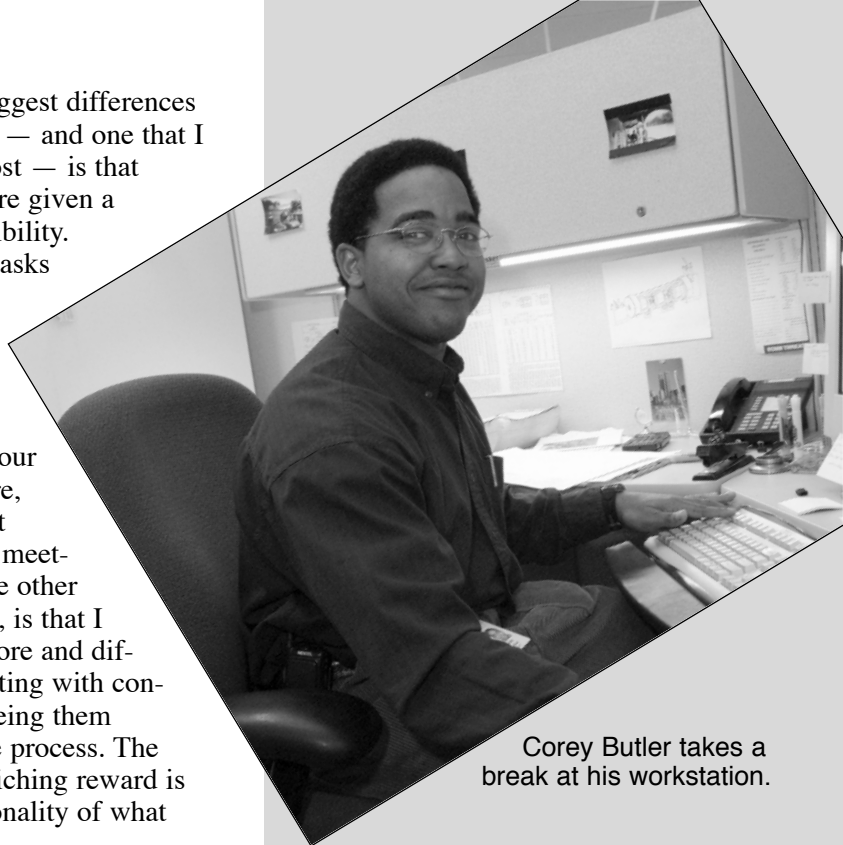
One of the biggest differences from my first job — and one that I appreciate the most — is that employees here are given a great deal of flexibility. We're given our tasks and deadlines, then left alone to do our work. Management understands that you know what your responsibilities are, and they trust that you'll succeed in meeting deadlines. The other benefit, of course, is that I get to work on more and different things, starting with concepts and then seeing them through the entire process. The biggest, most enriching reward is seeing the functionality of what you've done.

My job involves designing hardware that supports the accelerator. I've worked on a couple of the Synchrotron Light Monitors that take readings of light, and on modifications in the experimental halls, working with the researchers who come here, to accommodate their needs.

Probably the most challenging and interesting effort I've been involved with here is the Energy Recovery Project, which started in June 2002. We're replacing two cryomodule sections, and putting in a brand new set of magnets and diagnostics that will demonstrate the Lab's ability to develop energy recovery in an accelerator the size of CEBAF.

I live in Hampton, and when I'm not here working I'm usually either reading or watching movies. Science fiction has always been my favorite, and I love the J.R.R. Tolkien books. I was impressed to see that the movies have been adapted in such a way that they're very, very close to the books — that doesn't always happen. I enjoy getting out and riding a bike through the local parks. It's a great way to get some exercise and enjoy nature at the same time.

I'm a football fan, too, as my co-workers know. Unfortunately, I root for the Oakland Raiders. Let's just say that I was well greeted on the day after the Super Bowl this year!



Corey Butler takes a break at his workstation.

In their own words

*with
mechanical
designer
Corey Butler*

Leading the way on cavity redesign

Visiting senior scientist tackles cavity redesign challenges with ISRFST staff

by James Schultz

Jacek Sekutowicz knows well how a life's course can be set by an inspirational mentor. Currently a visiting senior staff scientist at Jefferson Lab's Institute for Superconducting Radiofrequency Science & Technology, Sekutowicz clearly remembers when, as a 16-year-old high schooler in Warsaw, Poland, he became captivated by applied physics. "I had a very good teacher," he recalls. "Maybe that's what convinced me. Accelerators were just very interesting to me. It was fascinating to know you could move a particle almost at the speed of light."

As he grew older, Sekutowicz amplified that interest, first by getting a Master's degree in Microwave Electronics at Warsaw Technical University in 1973 and then a Master's degree in Mathematics in 1981 at Warsaw University. While working at the Institute for Nuclear Studies on medical accelerators, he had nearly completed a Ph.D. in physics — an effort interrupted in 1985 just before the final examination by a job offer at

DESY (the Deutsches Elektronen Synchrotron) in Hamburg. The degree was completed later when he decided to stay in Germany for good. "I came to Hamburg for one year only," he says. "And now, it is almost 18 years later and I am still there."

As one of the world's acknowledged experts in superconducting technology, Sekutowicz is currently helping Jefferson Lab staff design and refine the next generation of niobium cavities as part of a proposed 12 billion electron volt (12 GeV) upgrade to the Lab's accelerator. The accelerator upgrade is the first step in a process that will enable Jefferson Lab researchers to push beyond the frontiers where they now delve into quark-related physics.

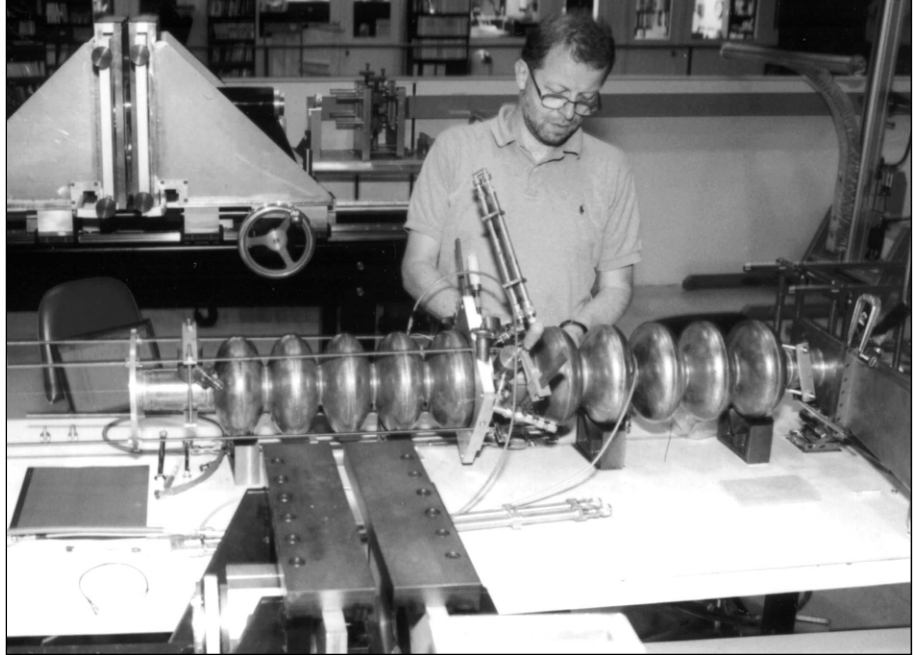
"When I'm needed I give advice," Sekutowicz says. "The projects here are very, very interesting, with some of the best people working on them: like Peter Kneisel and Lia Merminga, and with a young new generation of scientists like Genfa Wu and many gifted engineers and technicians. So I was happy when JLab management gave me this opportunity to visit the Lab for a while. The collaboration is very good; it began a few years ago when the Lab started to work on the Spallation Neutron Source project and asked for my involvement. I'm excited and I'm satisfied. We have a turbulent time now; so many things happen here. I hope and believe our collaboration won't stop after I return to DESY in a year or so."

Sekutowicz is participating in the design of new cavities and devices known as high order mode couplers, which he and his colleagues believe are needed to reduce or eliminate "parasitic" modes: electromagnetic oscillations set up by the accelerated beam as it passes through the cavities. These oscillations can, like the backwash of water in a storm-tossed bay cutting off



Jacek Sekutowicz pauses from his work for a quick photo.

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the tops of wind-tossed waves, reflect back on the beam and degrade its quality. The designers' ultimate goal is to harness these resultant electromagnetic fields in order to insure highly efficient beam passage through the cavities.

The cavities made of superconducting niobium are the innermost part of a three-part cryomodule system that includes a cooling tank of liquid helium and a vacuum vessel known as a cryostat that provides insulation to allow the cavities to remain cooled to two Kelvin, or nearly absolute zero. At such a temperature, the microwaves that are introduced to speed the electron beam lose very little of their energy to the cavities' superconducting wall, accelerating charged particles with far greater efficiency than would non-supercooled copper cavities.

"At the moment, JLab is one of the best laboratories in the world for radiofrequency superconductivity," Sekutowicz says. "We have a great opportunity to push the technology, to achieve lower cryogenic losses and higher accelerating gradients. It improves performance and saves money."

As part of a 12-nation collaboration led by DESY, Sekutowicz has worked the last three years on a project team studying the feasibility of

using novel accelerating cavities to create a trillion-electron-volt, or TeV, linear collider known as TESLA. The Tera Electron Volt Energy Superconducting Linear Accelerator is based on the early work of internationally recognized accelerator physics and superconductivity expert Maury Tigner, professor of physics emeritus at Cornell University. Work in the area was reinvigorated at Cornell 10 years ago during a workshop organized by Hasan Padamsee, adjunct professor of physics. (Both men have been very involved with Jefferson Lab over the years and Tigner has been a member of many review boards.)

The test of these new cavities was carried out last year at DESY, with results that are "very encouraging," according to Sekutowicz. A similar new accelerating structure could be adapted to Jefferson Lab's Free-Electron Laser, or FEL. Future FEL upgrades could incorporate two inter-linked five-cell cavities with fewer high order mode couplers to ensure a high quality electron beam for the FEL. "We've already made a copper model that has tested well," Sekutowicz says. "The next step will be to fabricate a niobium prototype and test it. If all goes as hoped, we could have the prototype by this summer."

In late-summer 2002, Jacek Sekutowicz conducted tests on a copper model of the new cavity design under development within ISRFST. Sekutowicz hopes to have a niobium prototype ready for the next step in developmental testing this summer.

Hall A collaborators meet, discuss research

Dozens of Hall A collaborators met at Jefferson Lab Dec. 10-11 to hold their second annual analysis workshop. The focus of this year's workshop delved into JLab's accelerator, the Hall A cryogenic target and the high resolution spectrometers.

Collaborators followed the workshop with their semi-annual meeting Dec. 12-13. Thirteen new Ph.D. students, post-doctoral fellows and staff/university physicists were added to the collaboration.

During 2002, Hall A collaborators finished five experiments, completed the analysis on four previously finished experiments and are nearing completion on two more. All total now, Hall A has had more than two

dozen papers printed in publications such as *Physics Review Letters* and other refereed journals.

For additional information about the Hall A collaboration, visit the *On Target* archive site on the web at www.jlab.org/news/news_letter/.

▲ This official Hall A collaboration photo was taken more than a decade ago — not long after CEBAF Center opened. Then Hall A Leader, Jean Mougey, is standing, in the middle row, center left. (Photo courtesy of physicist John Watson, Kent State University.)



▼ Hall A collaborators found time during their meeting to gather in Hall A for a group photo. Hall Leader Kees de Jager is standing (center left) on the target platform. Hall A users represent more than 50 institutions from more than a dozen countries.



Competitors take 'Science to the Core' at academic tournament

More than 100 of the brightest young minds in the Commonwealth converged on Jefferson Lab Feb. 8 to compete in this year's Virginia Regional Science Bowl, dubbed "Science to the Core." Winning the academic competition was the Thomas Jefferson High School for Science and Technology, from Alexandria. Following in second place was the Governor's School for Global Economics and Technology from Keysville, and finishing in third — in their very first Science Bowl competition — was Walsingham Academy from Williamsburg.

CEBAF Center and the VARC buildings were bustling with the teams, their coaches, and numerous family members and classmates watching the event. Running the tournament were more than 60 Lab employees and their family members who volunteered to perform duties as moderators, rules judges, time keepers, score keepers and scientific judges.

"Our volunteers did an outstanding job," beamed event coordinator and JLab's Science Education manager, Jan Tyler. "One hundred fifteen students, 24 teachers, and several dozen parents representing the 21 participating schools attended the Science Bowl, and many of them expressed their appreciation for the great job the Lab did in hosting this event. The Science Bowl couldn't have happened without all of our volunteer support."

"I've been involved with eight Department of Energy Science Bowl competitions over the past four years, and none ran smoother than this year's Virginia Regional Science Bowl," Tyler continued. "My staff and I thank everyone who made the tournament such a huge success. Our volunteers were fantastic, and by example, they did a great job of promoting education, academic excellence and an interest in math and science."

In an intense question-and-answer game format, the contestants were grilled on their knowledge in various fields of math and science. Morning sessions were in a round-robin format, followed by a double-elimination round in the afternoon. Winning first place at the tournament earned Thomas Jefferson High School a trip to the Science Bowl Nationals to be held in Washington, D.C. in early May. This was the team's third straight regional science bowl win; and it was last year's winner at Nationals. For finishing in first place on Feb. 8, they took home a team trophy and banner and a \$1,000 prize that can be used by their school's science department. Second place won \$750 for its school and third place earned \$500. The Piedmont Governor's School for Math, Science and Technology won the Stay-All-Day Activities competition and took home a \$300 award for their school.

Former JLab intern & Science Bowl competitor is finalist in Westinghouse Competition

One of the Virginia Regional Science Bowl competitors was returning to familiar territory when he arrived at Jefferson Lab on Feb. 8.

Ryan Cash, a senior at Walsingham Academy, spent part of last summer here with the Lab's Summer Honors Internship Program (SHIP). Cash worked for Amrit Yegneswaran, head of the Hall B Instrumentation team. The student helped develop a system for automating high-voltage diagnostic tests regularly conducted on Hall B equipment. Cash's main contribution was programming the software interface for the system; and by the time his internship ended, the Lab had a working diagnostic system.

For the work he did as a JLab intern, Cash was recently named a semi-finalist for the 2002-2003 Siemens Westinghouse Competition in Math, Science & Technology.



Thomas Jefferson High School for Science & Technology won the 2003 Virginia Regional Science Bowl. Here the team, with Coach Sharon Baker (far right), poses with their trophy, banner and a poster-sized version of their \$1,000 check.

Milestones for January 2003

Hello

Randy S. Michaud, Accelerator Operator, Accelerator Division

Chad T. West, PC Systems Administrator, Accelerator Div.

Goodbye

Walter J. Lacy, Senior Electronics Technologist, Accelerator Div.

Belated Congratulations

Carrie Nichols, Environment, Health and Safety Reporting Office clerical assistant, earned a Bachelor of Science degree in Psychology from Christopher Newport University in December 2002. Nichols is now a licensed pre-kindergarten through 6th grade teacher. She hopes to begin teaching in August 2003.

"Milestones" highlights the achievements of JLab staff and users, full-time and term new hires, separations and retirements. To submit staff or users' promotions, special honors and awards send information to magaldi@jlab.org or call ext. 5102

Physics in the world of comic book heroes

The wild, wacky world of "Comic Book Physics," will be presented by Jim Kakalios, from the University of Minnesota, at the Tuesday, March 25, Spring Science Series event.

During this educational, entertaining presentation, Kakalios asks: Even superheroes must obey the laws of physics — or do they? Exactly how much force does it take to leap a tall building in a single bound and what does that tell us about Superman's home planet? Did Spider-Man accidentally cause the death of the falling Gwen Stacy when he caught her with a web? Discover what's right — and wrong — with the physics in the world of comics.

The event begins at 7 p.m. in the CEBAF Center auditorium. It will last about one hour with a question and answer period at the end. It is free and open to anyone interested in learning more about science. Enter Jefferson Lab at its main entrance (Onnes Dr.). Everyone over 16 is asked to carry a photo I.D., and security guards may perform vehicle and package inspections.

Recycling Centers improve Lab's recycling ability

Recycling at Jefferson Lab is improving due to the growing number of Recycling Centers available on site, according to Linda Even, EH&S Reporting.

Through the joint effort of several volunteers (Recycling Center coordinators), Facilities Management, and Jennifer Allen, EH&S Reporting, the number of Recycling Centers has grown from just a couple about a year ago, to eight fully functioning Recycling Centers.

The centers are set up as collection points for 1 and 2 plastic bottles, aluminum cans, used batteries, used

transparencies & sleeves, greeting cards, computers CDs and diskettes, clean packing materials (i.e., Styrofoam peanuts), all sizes and types of used toner cartridges, and Tyvec (i.e., FedEx-type envelopes). In addition, many of the Recycling Centers also have space allocated for re-usable cardboard boxes to be broken down and stacked. Each center is maintained by one or more Recycling Center coordinators.

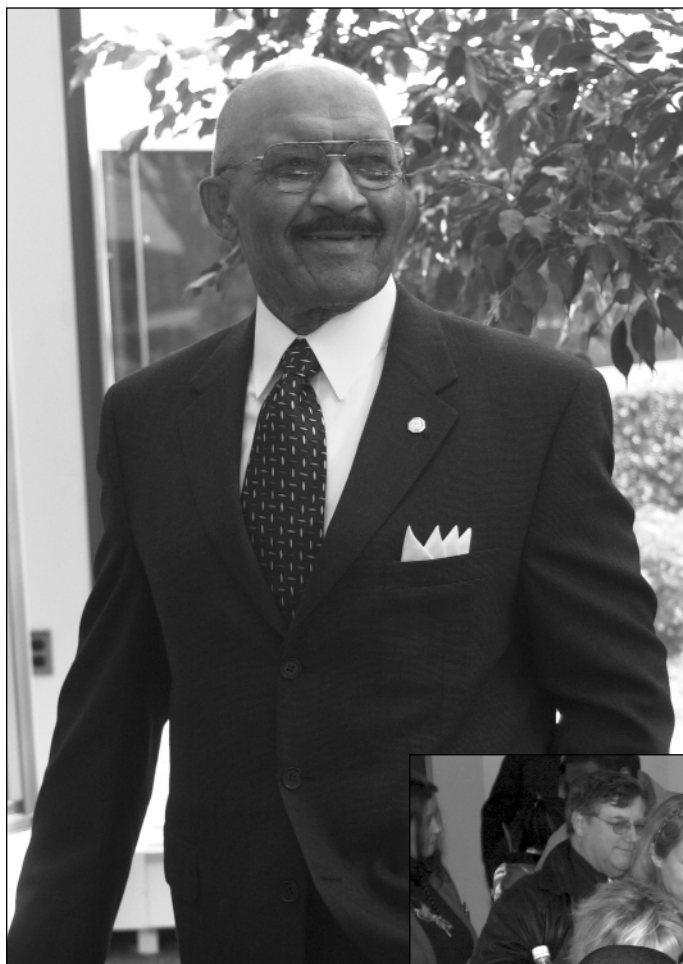
"There are several facilities on site and specific floors in the Applied Research Center where we would like to increase recycling opportunities by adding additional centers," says Jennifer Allen. "Eventually we hope to have a Recycling Center within convenient walking distance of all major workspace areas."

For additional information about JLab's active Recycling Centers and related programs, such as Green Procurement, visit jlab.org/intralab/earthwise/. For more information about setting up a Recycling Center or volunteering to be a coordinator, contact Allen at ext. 5075 or e-mail jallen@jlab.org.



Sharon Parkinson, CFO budget officer, shakes the hand of Lab Director Christoph Leemann after winning the "name the cafeteria" contest. On Jan. 31 the Lab's cafeteria celebrated a grand re-opening as "Quark Cafe." Visit the JLab web page (www.jlab.org/news_letter/) for additional info and photos.





Naval legend Carl Brashear talks about his life, dreams at JLab Black History event

◀ Naval legend Carl Brashear spoke to a full house in the CEBAF Center auditorium on Feb. 19. Brashear was the first black deep-sea diver in the U.S. Navy, the first black Master Diver, and the first person in naval history to be restored to full active duty as an amputee. Despite growing up in a poor, Kentucky sharecropper family in a segregated U.S., he never let any kind of adversity keep him from his dreams. Brashear talked about his life, the challenges he's faced and the making of a Twentieth Century Fox motion picture based on his life. Afterward he spoke with, and signed autographs for, many of the hundreds of Lab employees, family members, and public visitors who attended the Lab's Black History Month event.

Students and adults appreciated Carl Brashear's visit to JLab to share his life story and philosophy for success. Afterward, crowds thronged around him for autographs. ▶



Be sure to vote on 2003 JLab T-shirt design

Voting for the 2003 JLab T-shirt design is underway and runs through March 14. All designs have been posted on the Jefferson Lab Activities Group web page (www.jlab.org/jag/) for on-line voting (one vote per person for people with JLab computer accounts) to determine the winning

design for the Lab's 2003 Run-A-Round T-shirt.

The winning design will be unveiled at the Run-A-Round, which is scheduled for Wednesday, May 21.

The winning designer will receive a free T-shirt, \$25 worth of JAG Bucks, and recognition. If the winning

design is submitted by a team, each member will receive a T-shirt and the team will receive \$35 in JAG Bucks.

Anyone needing assistance with voting may contact Dave Williams, (ARC) building 1, rm 527, ext. 7183; or Jessica Ledbetter, (CEBAF Center) building 12, rm L107, ext. 7250.

Virginia Life Achievement award

Former CEBAF scientific director earns outstanding scientist honors

Dirk Walecka, College of William and Mary physics professor and former scientific director of the Continuous Electron Beam Accelerator Facility (now Jefferson Lab), has been named the recipient of Virginia's Life Achievement in Science award for 2003.


Governor Mark R. Warner and Science Museum of Virginia Director, Dr. Walter R.T. Witschey, announced the state's Outstanding Scientists and Industrialists of 2003 in a special announcement on Feb. 11. The honorees were introduced to the General Assembly on Feb 18; and they will receive their awards at a banquet held at the Science Museum of Virginia in Richmond on April 1.

"These recipients are at the cutting edge of their fields, from cancer cures to protecting the Chesapeake Bay, and from transportation safety to particle physics," says Governor Warner. "Their creativity, contributions, and dedication are aimed at making life — in Virginia and beyond — better for us all."

The Governor described Walecka as "one of the world's leaders in nuclear theory. His supporters say he is able to grasp his field in its totality, bring order to it, synthesize contributions of other experts and train the next generation. He has made fundamental contributions to understanding the structure of the nucleus from the general principles of quantum mechan-

ics and special relativity. His work with electron beam analysis led to creation of the Continuous Electron Beam Accelerator Facility, now called the Thomas Jefferson National Accelerator Facility, where he has served as scientific director."

Walecka was formerly a professor of physics at Stanford University; and from 1986-92 he was the scientific director of CEBAF. He was a Senior Fellow at CEBAF and a Governor's Distinguished CEBAF professor of the Commonwealth of Virginia. The physicist has authored several books and more than 130 publications in scientific journals.



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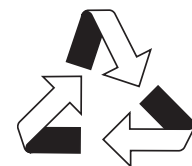
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